

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 06 MAY 2005

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PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2005/050132 ✓

International filing date (day/month/year)
12.01.2005 ✓

Priority date (day/month/year)
22.01.2004

International Patent Classification (IPC) or both national classification and IPC
G09G3/34

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b/s(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050132

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050132

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4,6
	No: Claims	1-3,5,7
Inventive step (IS)	Yes: Claims	
	No: Claims	4,6
Industrial applicability (IA)	Yes: Claims	1-7
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

1. Reference is made to the following documents:

D1: WO 03/079323 A (KONINKLIJKE PHILIPS ELECTRONICS N.V.; ZHOU, GUO-FU;
JOHNSON, MARK, T; H) 25 September 2003 (2003-09-25)
D2: WO 03/079324 A (KONINKLIJKE PHILIPS ELECTRONICS N.V.; ZHOU, GUOFU;
JOHNSON, MARK, T; HE) 25 September 2003 (2003-09-25)

Re Item VIII

Certain observation of the international application (clarity)

2. The application does not meet the requirements of Article 6 PCT, because claims 1, 4, 6 and 7 are not clear.
- 2.1 The scope of the subject matter of claims 1 and 7 is obscure because the wording "... and that the means for supplying preset signals are arranged such that for the preset signal to at least a part of the image screen comprising a group of columns and rows only one set of data is transferred for the preset signal for said group" (claim 1: page 13, lines 10- 13; claim 7: page 14, lines 10-13) does not help understanding whether the "only one" set of data is provided to the pixel only once for a certain number of frames, or for every frame a set of preset signal is provided.

Also, from the wording of claim 1 and 7 "... part of the image screen comprising a group of column and rows" it is unclear what kind of partition of the screen it is suggested. A similar objection applies to the wording of present claims 4 and 6.

In fact, in the art of matrix display devices, a column is defined as entity containing all the pixel which are electrically connected with the same conductor on which data signals are provided; that is, a column contains one pixel from every row of the matrix display, so that when defining a set of pixels belonging to one or more columns of the display, all the row of the display are automatically taken into account.

This means, then, that one can clearly define a group of columns or a group of rows (as

separate entities), but one cannot clearly understand what a "part of the image screen comprising a group of columns and rows" is.

Moreover, from the description (see page 9, lines 26-28) it appears that the sign of preset signals is the same along a column and it is only altered between frames while, from page 9, line 32 to page 10, line 3, it appears that the pixels belonging to "odd" rows receive a preset signal which is different from that provided to the pixel belonging to the "even" rows.

The applicant is therefore requested to clarify the wording of claim 1, 4, 6 and 7 taking into account the above mentioned passages of the description.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

3. Furthermore, the above-mentioned lack of clarity notwithstanding, the subject-matter of claims 1-3, 5 and 7, as understood, is not new in the sense of Article 33(2) PCT, and therefore the criteria of Article 33(1) PCT are not met.
- 3.1 Document D1 discloses (the references in parentheses applying to this document) a display device comprising an active matrix array of electrophoretic pixel elements (Fig. 2, item 18), control means comprising a row driver (Fig. 2, item 16) and a column driver (Fig. 2, item 10) for supplying drive signals to the pixel elements so as to bring them in a predetermined optical state corresponding to the image information to be displayed and means for supply preset signals to the pixel elements, whereby the preset signals applied alter between subsequent frames (page 3, lines 22-32), wherein the control means are arranged to change preset signals between frames in a column-to-column scheme so as to provide said preset signals for each frame to a group of columns containing all the pixels of the display (page 8, lines 10-17).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050132

The subject matter of present claims 1-3, 5 and 7 is therefore not new.

- 3.2 For the sake of completeness, it is noted that the subject matter of claims 1-3, 5 and 7 is also fully anticipated by document D2.

Document D2 discloses (the references in parentheses applying to this document) a display device comprising an active matrix array of electrophoretic pixel elements (Fig. 2, item 18), control means comprising a row driver (Fig. 2, item 16) and a column driver (Fig. 2, item 10) for supplying drive signals to the pixel elements so as to bring them in a predetermined optical state corresponding to the image information to be displayed and means for supply preset signals to the pixel elements, whereby the preset signals applied alter between subsequent frames (page 3, lines 24-33), wherein the control means are arranged to change preset signals between frames in a column-to-column scheme so as to provide said preset signals for each frame to a group of columns containing all the pixels of the display (page 7, lines 4-24 and, in particular, page 7, line 25 to page 8, line 7).